

63. (Withdrawn) The communications system of claim 63, wherein the means for receiving the balanced current signal comprises means for sensing a change in a magnetic field surrounding the twisted pair cable.

64-68. (Canceled)

Please add the following new claims:

1 69. (New) A method comprising:
connecting a transmitter to a transmission line;
receiving an input signal; and
transmitting the input signal on the transmission line by switching between a first power source and a second power source to generate a balanced current signal, the first power source comprising a direct current voltage source and the second power source comprising a sinusoidal waveform generator and the direct current voltage source.

2 70. (New) The method of claim 69, wherein the balanced current signal comprises a positive domain image and a negative domain image and wherein the negative domain image is inverted from the positive domain image.

3 71. (New) The method of claim 69, wherein the transmission line is a twisted pair cable.

ENTER 4 72. (New) The method of claim 69, wherein the input signal is a digital signal.

73. (New) The method of claim 69, wherein the sinusoidal waveform generator includes a direct current voltage offset.

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74. (New) A transmitter comprising:
a connection to a transmission line;
a plurality of power sources, the plurality of power sources comprising a first
power source and a second power source, the first power source
comprising a direct current voltage source, the second power source
comprising a sinusoidal waveform generator and the direct current voltage
source; and
a switch, wherein the switch is coupled to the plurality of power sources and
wherein the switch generates a balanced current signal by switching
between the plurality of power sources.

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75. (New) The transmitter of claim 74, wherein the balanced current signal comprises
a positive domain image and a negative domain image and wherein the negative
domain image is inverted from the positive domain image.

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76. (New) The transmitter of claim 74, wherein the transmission line is a twisted pair
cable.

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77. (New) The transmitter of claim 74, wherein the sinusoidal waveform generator
includes a direct current voltage offset.